UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/588,367	06/06/2000	Manish Desai	56728-P001US-10001505	8928

29053 7590 06/01/2004

DALLAS OFFICE OF FULBRIGHT & JAWORSKI L.L.P.
2200 ROSS AVENUE
SUITE 2800
DALLAS, TX 75201-2784

EXAMINER	
HENEGHAN, MATTHEW E	

ART UNIT	PAPER NUMBER
2134	

DATE MAILED: 06/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/588,367	DESAI ET AL.	
	Examiner	Art Unit	
	Matthew Heneghan	2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23 and 35-57* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *35-40 and 56* is/are allowed.

6)☒ Claim(s) *1-17,41-54, and 57* is/are rejected.

7)☒ Claim(s) *18-23 and 55* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *6 June 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. In response to the most recent office action, the first action on the merits, Applicant has amended claim 19 and added claims 52-57.

2. Claims 1-23 and 35-57 have been examined.

Drawings

3. In view of the amendments to the specification, all previous objections to the drawings have been withdrawn.

Specification

4. All previous objections to the specification are withdrawn.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. All previous rejections under 35 U.S.C. 112 are withdrawn.

6. Claim 53 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: It is unclear how the "software modules previously stored" or the "updated versions of software previously stored" relate to the other parts of the claimed invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-3, 5, 41, 43-45, and 48-50 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,790,677 to Fox et al.

As per claim 1, the transaction system disclosed by Fox includes a credential binding server (the configuration server) that registers and transmits configuration information to a set of computing units (transaction processing devices) over a public network, using cryptography (see column 2, lines 8-52).

As per claim 2, the transaction device sends encrypted information to the binding server.

As per claim 3, the credential binding server uses encryption in generating credential information to send to the transaction processing devices (see column 11, lines 11-38).

As per claim 5, the encryption means of the computing units are internal to them.

As per claim 41, Fox discloses the use of stand-alone computers, such as PC's, as terminals (see column 2, lines 44-48). The system may configure with respect to particular user accounts (see column 22, line 48 to column 23, line 55).

As per claims 43 and 44, credit card and debit card transactions are supported (see column 22, lines 33-44).

As per claim 45, the example given is a point of sale transaction.

As per claim 48, a card reader on the terminal is disclosed (see column 17, lines 10-15).

Regarding claim 49, any system that is able to run on a public network is also inherently able to run on a private network.

As per claim 50, the system disclosed by Fox may be run using more than one network (see column 5, line 64 to column 6, line 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 4, 6-17, 42, 46, 47, and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,790,677 to Fox et al.

Though the system disclosed by Fox is disclosed to be usable over a public network, Fox does not specify the protocol to be used over the public network.

Regarding claims 6 and 42, official notice is given that TCP/IP is the most common Layer 3 protocol used on public networks, including the Internet.

Regarding claims 4 and 8, implementations of the TCP/IP protocol inherently include protocol stacks on all connected nodes.

Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to implement the system disclosed by Fox using TCP/IP as the Layer 3 protocol, as it is the most widely-used public network protocol.

As per claim 7, the credential binding server is a configuration module.

As per claims 9, 11, and 13, the credential binding server issues certificates for each transaction processing device, and sends them over the network to the respective terminals.

As per claim 10, 12, 14, and 17, the credential binding server generates a certificate for the binding server to send back to each transaction processing device (see column 11, lines 24-38).

Regarding claims 15 and 16, any module that performs encryption inherently uses a cryptographic algorithm.

Regarding claims 46 and 47, is official notice is given that it is well-known in the art that communications protocol stacks and cryptographic modules may be implemented in hardware, in order to reduce execution time.

Therefore, it would obvious to one of ordinary skill in the art at the time the invention was made to implement the communications protocol stacks and cryptographic modules in the invention disclosed by Fox in hardware, in order to reduce execution time.

Regarding claim 51, official notice is given that, in systems having multiple network interfaces, the method of sending of packets through different interfaces depending upon the destinations, in order to reduce transmission time, cost, or network congestion, is well-known in the art.

Therefore, it would obvious to one of ordinary skill in the art at the time the invention was made to implement the invention disclosed by Fox by sending packets over each interface, as determined by the respective destinations, in order to reduce transmission time, cost, or network congestion.

9. Claims 52-54 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,790,677 to Fox et al. as applied to claims 1 and 41 above, and further in view of U.S. Patent No. 5,745,705 to Iguchi.

Fox only discloses the sending of credentials, and not the sending of initialization data to terminals.

Iguchi discloses a set of POS terminals connected over a public communication line (see column 4, lines 27-30) to a configuration server ("controller"), which is responsible for the configuration of the terminals, sending initialization data that is installed during the power-on cycle to update the systems (see column 5, lines 31-53). The received data is stored in a maintenance storage means (a database services module) and is installed according to the determination of a maintenance data setting (the software module). Iguchi further suggests that this is done in order to provide a POS system which enables the executable program and setting to be altered at any time (see column 4, lines 6-8).

Therefore it would be obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Fox by adding the functionality disclosed by Iguchi to the binding server and terminals, in order to provide a POS system which enables the executable program and setting to be altered at any time.

Allowable Subject Matter

10. Claims 18-23 and 55 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter: Applicant has persuasively argued that Fox does not anticipate claim 18, and no art was found that would make it obvious for the security module to extract the key from the certificates rather than simply using the registration data.

Claims 19-23 and 55 would be allowable based upon their dependence on claim 18.

12. Claims 35-40 and 56 are allowed.

13. The following is an examiner's statement of reasons for allowance: Claim 35 is allowable for the reasons stated in Applicant's second argument regarding claim 35 (see Paper No. 7, p. 29).

Claims 36-40 and 56 are allowable based upon their dependence upon an allowable base claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

14. Applicant's arguments, see Paper No. 7, filed 24 March 2004, with respect to the rejection of claim 41 under 35 U.S.C. 112 have been fully considered and are persuasive. The rejections under 35 U.S.C. 112 have been withdrawn.

15. Applicant's arguments, see Paper No. 7, filed 24 March 2004, with respect to claims 18 and 35 have been fully considered and are persuasive. The rejections of claims 18-23 and 35-40 have been withdrawn.

16. Applicant's arguments filed 24 March 2004 with respect to the remaining claims have been fully considered and are not persuasive.

Regarding the rejections under 35 U.S.C. 102 to claims 1 and 41 (see Paper No. 7, pp.17-19), the credentials that are sent back from the binding server to the multiple computing units are used by the units to enable them to transact with the system in general, and therefore constitute configuration information. Since the description specifying "configuration" in Applicant's specification recites data fields in an open-ended manner, any data field that is to be used to generally enable future transactions can also be treated as such.

Regarding the rejection under 35 U.S.C. 102 to claim 50 (see Paper No. 7, p. 20), Fox discloses that multiple networks may be used, and enumerates a public

network, as well as several types of networks that are commonly implemented privately. Given that public and private networks are interoperable, and since Fox makes no suggestion that these types of networks would be mutually exclusive, it is therefore inherent that Fox's system can be implemented using both public and private networks.

Regarding the rejection under 35 U.S.C. 103 to claims 4, 6-23, 42, 46, 47, and 51 (see Paper No. 7, pp.21-22), the use of Fox's system in the context of a public network is disclosed. Since the user of a system cannot necessarily control the equipment used in such a situation, there is clear an advantage to using communications protocols and topologies that are already in wide public use, since it affords more frequent interoperability with other equipment. The simple fact that the Internet is widely used by the public is therefore motivation in and of itself.

Regarding the rejection under 35 U.S.C. 103 to claim 7 (see Paper No. 7, p. 23), the rejection as written incorporates the rejection of base claim 3. Claim 7 only specifies that a configuration module contain the second cryptographic services module of claim 3. Since a module is simply a collection of routines and data structures dedicated to a particular task (see Microsoft Computer Dictionary, Fifth Edition, p. 346), the disclosure of a cryptographic services module render the existence of a configuration module to be obvious; claim 7 therefore stands or falls with its parent claims, and no further citation is necessary.

All communications using the Internet must use the TCP/IP (Transmission Control Protocol / Internet Protocol) protocol, which inherently contains at least one protocol stack at each node.

Regarding the rejections of claims 11, 13, and 15 (see Paper No. 7, pp. 23-24), no additional citation is given because the reference is cited in base claim 1. The unique credential of column 2, line 35 clearly constitutes a terminal certificate. The credential generated by the binding server is, at least temporarily, stored within the binding server before being transmitted to the appropriate participants. Since the set of all functions and data necessary for cryptographic activities comprise a cryptographic services module, the credential, which is solely used for cryptography, is stored there.

Regarding the rejections of claims 10, 12, 14, and 16 (see Paper No. 7, p. 24), the binding server comprises the certificate manager and the configuration server, which, being in the same system, are communicatively connected. The storing of the certificate in the second cryptographic services module is discussed with respect to claims 11, 13, and 15, above.

Regarding to Applicant's objection to the communication of the rejection to claims 35-40 (see Paper No. 7, pp. 27-28), the Examiner, noting that all but one of the limitations taught to features of the invention that had previously been discussed, elected to not repeat the details for the sake of brevity. The claims, however, are now found to be allowable, for the reasons described above.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew E. Heneghan, whose telephone number is (703) 305-7727. The examiner can normally be reached on Monday-Thursday from 8:00 AM - 4:00 PM Eastern Time. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse, can be reached on (703) 308-4789.

Any response to this action should be mailed to:
Commissioner of Patents and Trademarks
P.O. Box 1450
Alexandria, VA 22313-1450
Or faxed to:
(703) 872-9306
Hand-delivered responses should be brought to Crystal Park 2, 2121 Crystal Drive, Arlington, VA 22202, Fourth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

MEH

May 26, 2004

GREGORY MORSE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100